PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF MARCH 2, 1926

A regular meeting of the New York Entomological Society was held at 8 P. M. in the American Museum of Natural History, President Dr. Frank E. Lutz in the chair, with twenty-three members and thirteen visitors present.

The curator reported the Society's need of a stereopticon owing to the increased number of illustrated addresses and the inconvenience of borrowing for such occasions.

Miss Madeleine Seydel, 86 Haven Ave., New York, was elected a member of the Society.

Dr. Lutz explained the necessity of closing meetings promptly at 10 P. M. The museum is open on Tuesday evenings until 9:30 P. M. for meetings in the auditorium during the lecture season and is therefore lighted by the main engine, which also lights the Society's room. The prolongation of meetings beyond even 9:30 P. M. requires the continued operation of this engine at considerable expense to the museum which, up to 10 P. M., is permitted. After the close of the lecture season, the Academy Room, lighted by the donkey engine, is the only place available; and if meetings are prolonged beyond 10 P. M. it will be necessary to hold them in that room.

On motion by Mr. Olsen the Executive Committee was authorized to purchase a stereopticon as suggested by the curator for a sum not exceeding $100.

Mr. Wm. T. Davis exhibited twelve types and eight allotypes of North American cicadas described by him, to be placed for safe keeping in the collection of the American Museum of Natural History. The species were as follows: *Tibicen apache,* and *semicincta; Okanagana magnifica, mariposa, nigrodorsata, bella, bella* var. *rubrocaudata, nigriviridis, oregona, triangulata, balli, rubrorenosa.*

Mr. Shoemaker exhibited "A few interesting Ornithoptera Butterflies from New Guinea." The species shown were *supremus, chomaera, victoriæ, arruana, lydius,* and *goliath,* the latter differing, however, in some respects from typical. Mr. Shoemaker gave the individual history of each specimen.

Mr. Herbert Johnson spoke of "Domestic Insects in China" and of collecting conditions there. He referred briefly to the silk industry as carried on in Soochow and at more length to the Chinese passion for song birds and insects, so that the collection and caging of cicadas, crickets and katydid-like Orthoptera has become a regular business. Passing to collecting conditions Mr. Johnson showed, with about forty stereopticon slides, the conditions as he had found them during his stay in China. Agricultural industry

has completely obliterated forests near Soochow, but narrow strips of trees and shrubs occur along canal banks and on some roads. Private gardens afford good collecting, and temple gardens even better, especially when lotus ponds are included. Cemeteries were also found useful at times. Many interesting scenes in the narrow streets of Soochow were shown, especially of its canals, which the speaker compared with those of Venice. Mr. Johnson's business brought him into contact with the China Medical Board and one of its problems, the human manure basins or pots and manure boats, which are rinsed and ply upon the canals in which clothes are washed and from which water for cooking is obtained.

Mr. Johnson, Dr. Leonard present as a visitor, and several members joined in a discussion of the silk industry and of the superb silk exhibit in preparation at the museum.

Mr. Olsen and Mr. Ragot described insect cages used in Spain and in Mexico.

Mr. Dow, referring to Mr. Johnson's account of cricket fighting in Soochow, described the mantis fights staged by Chinese in Southern California.

Dr. Sturtevant spoke on "Sex Determination in Insects," with blackboard diagrams illustrating the following points: There are three distinct types of sex-determination by chromosomes among the insects.

A. The female has two similar "X" chromosomes, the male has only one "X." Each sex has two complete and similar sets of all other chromosomes. This type occurs in the Orthoptera, Corrodentia, Heteroptera, Odonata, Coleoptera, Diptera, and in most cases Homoptera.

B. The male has two similar "Z" chromosomes, the female has only one "Z." Each sex has two complete sets of all other chromosomes. Here the sperm are all alike (with Z); the eggs are of two kinds (half with Z, half without it). In the first type, on the other hand, the eggs are all of one kind but the sperm are of two kinds. This second type of sex determination occurs only in the Lepidoptera among the insects.

C. The female has two complete sets of chromosomes, the male has only one set. The male always exists by parthenogenesis, and fertilized eggs always produce females; but in some forms unfertilized eggs may fail to halve their number of chromosomes and thus come to produce females. This type occurs in the Thysanoptera and Hymenoptera, and in the family Aleurodidæ among the Homoptera.

Mr. Dow humorously described his vain efforts to collect cicadas that might prove to be rare or new, stating that he had heard 80,000,000 without being able to see one.

MEETING OF MARCH 16, 1926

A regular meeting of the New York Entomological Society was held at 8 P. M. on March 16, 1926, in the American Museum of Natural History, President Dr. Frank E. Lutz in the chair, with twenty-eight members and twelve visitors present.

Mr. Shoemaker, for the Field Committee, reported an outing arranged for April 4 to Roselle Park.

Mr. Hall, for the Executive Committee, reported the purchase of a stereopticon, as authorized by the Society, for $37.50.

On motion by Mr. Angell, the thanks of the Society were tendered to Mr. Hall, and the treasurer was authorized to repay him.

Mr. E. B. Chapin, 134 John Street, Hackensack, N. J., and Dr. J. G. Gehring, Bethel, Maine, were elected members of the Society.

Mr. Watson exhibited a part of the "Butterflies donated to the American Museum of Natural History by Mr. Frank Johnson," including *Coscinocera hercules, Rhescyntis morti, Papilio alexandræ, P. antennor, Agrias aedon, Prepona omphala, P. præneste.*

Dr. Melander spoke, with lantern slide illustrations, of "Insect Collecting on Mt. Rainier," which he had visited seven times. These visits had often been hampered by rain and immense snow falls, for which the mountain is famous. But during the short growing season, from June 15 to September 1, its alpine flora afford the best of collecting. About 100 slides were used to show these flowers and the insects that were attracted by them. The insects represented many orders, Diptera predominating in Dr. Melander's selection, which was said to aggregate twenty-four boxes with about 3,000 specimens in each. Many pictures were shown also of the scenery above and below the tree line, the glaciers and the desolate stone piles that result from its action.

His remarks were discussed by several members and all greatly enjoyed his account of this remarkable mountain.

Mr. Frank Johnson exhibited a gigantic moth, *Actias mittrei,* from Madagascar.

MEETING OF APRIL 6, 1926

A regular meeting of the New York Entomological Society was held at 8 P. M. on April 6, 1926, in the American Museum of Natural History, President Dr. Frank E. Lutz in the chair, with twenty-two members and four visitors present.

Mr. Angell reported for the Outing Committee a trip to Cedarhurst, L. I., on April 18; and an expedition to Roanoke Island, N. C.

Prof. A. L. Melander was elected a member of the Society.

Mr. Barber exhibited a copy of the "Naturalists' Guide to the Americas."

Mr. Angell presented Mr. Davis with a new slingshot for the further destruction of cicadas.

An invitation to attend annual meeting of the Riverdale Entomological Society was read and the Society commended by President Lutz.

Mr. Davis exhibited the "Report of the British National Committee on Entomological Nomenclature" with a letter from Dr. K. Jordan asking for criticism.

Dr. Lutz objected at once to Section III of Article 23, by the operation of which an upheaval of nomenclature would become possible.

Mr. Angell exhibited a case illustrating the life history of *Lucanus cervus.*

Mr. Olsen, under the title "Miscellaneous Notes on Cicadellidæ," read a

translation of an obituary of Dr. Bergroth; and exhibited a number of pamphlets relating to the family, praising especially the monographic study of *Deltocephalus* by Dr. Long. Two papers on the Jassidæ of Kansas by S. E. Crumb were interesting as having been overlooked by Van Duzee. Mr. Olsen closed with an account of a recent visit to Ithaca and of his inspection of the collection of Cornell University.

The Comstock method of pinning insects on blocks of wood was discussed by Mr. Barber, Mr. Davis and Dr. Lutz, who said that as improved in the United States National Museum, it had such advantages that it had been adopted for gall insects in the American Museum of Natural History.

Mr. Bird delighted the Society with a story of "The Entomological Ignis Fatuus of the Dismal Swamp, Virginia," in which the adventures of Mr. Frank Morton Jones and himself in the swamp were described, and coupled with their efforts to secure for Harry G. Barber and Herbert S. Barber *Saldoidea slossonæ,* reputed by Mrs. Annie Trumbull Slosson to occur on mossy logs. A calculation of the number of mossy logs to be examined in the 1,000 square miles of swamp finally decided them to leave these 3 mm. long shore bugs in peace, sitting on their mossy logs beckoning to their respective Barbers.

Mr. Angell exhibited a deformed *Lucanus cervus.*

Mr. Davis presented a pamphlet in Spanish on grasshoppers and their economic importance.

MEETING OF APRIL 20, 1926

A regular meeting of the New York Entomological Society was held at 8 P. M. in the American Museum of Natural History, President Dr. Frank E. Lutz in the chair, with twenty-two members and sixteen visitors present.

Mr. Shoemaker reported the next outing to Hewlett, L. I.

The Decoration Day outing was discussed.

Mr. Davis exhibited the "Check List of Lepidoptera" by Barnes and Benjamin; he also read W. J. Chamberlin's announcement of the "Buprestidæ of North America."

Mr. Sheridan spoke of the new School of Microscopy.

Prof. Alexander Petrunkevitch spoke of "Spider Life in Guadeloupe and Porto Rico" with illustrations by stereopticon views. His account of Guadeloupe and its volcanic mountains, its tremendous profusion of vegetation, and colorful rocks clothed with mosses and lichens, made many members wish to go there in spite of the absence of toilets and paucity of spiders. His stay in Porto Rico was longer, from September 10 to February 1, and yielded interesting results in the study of tarantulas. Dr. Petrunkevitch's account of the wasp *Pepsis marginata* attacking huge spiders will be printed in full.

In the discussion of poisonous spiders which followed, Mr. Davis and Dr. Lutz both spoke of *Latrodectus mactans* as occurring in New Jersey.

MEETING OF MAY 4, 1926

A regular meeting of the New York Entomological Society was held at 8 P. M. on May 4, 1926, in the American Museum of Natural History, President Frank E. Lutz in the chair, with twenty-eight members and five visitors present.

Mr. Leng exhibited the compilation, by Dr. W. Horn, of Berlin, of the resting place of the entomological collections of the world.

Mr. Shannon, under the title "Do Diptera Migrate?" spoke first of the movements of insects, capable of interpretation as migratory, recorded in literature, going back to 1100 A. D. and giving rise to superstitious fear. He then spoke of his own observations since 1915 at Long Beach, Far Rockaway, Norton's Point, on Long Island, and Longport in New Jersey, establishing determinate movements of *Anosia plexippus, Anax junius,* and other butterflies and dragon flies southward in autumn. For Diptera he had observed fifty such autumnal flights since 1915.

In answer to Dr. Felt he said that he was unwilling to make comparison with bird migration or to advance any theory as to the cause. He was, however, convinced by repeated observation that the movements described were seasonal, not accidental, and not clearly dependent upon wind.

In the discussion which followed, Dr. Felt gave numerous recorded instances of extraordinary insect movements due entirely to wind drift, one in particular involving 100,000 aphids carried by wind to Spitzbergen. Mr. Davis recalled the long continued observations of Mrs. Slosson on Mt. Washington; Mr. Bird the northward drift of flocks of cotton moth; and Dr. Lutz the occasional drift of *Erebus odora* from the tropics to Canada.

Mr. Swift, however, described movements of butterflies observed at Panama, involving journeys north and south for sixty miles, and Mr. Shannon added similar occurrences in Florida.

Dr. Lutz stated that the American Museum had planned to investigate the subject as far as *Anosia plexippus* was concerned; but the failure of the butterfly for the last two years to move in large flocks had prevented carrying it out.

Mr. Swift gave an interesting account of the "Relationship between Xyleborus Beetles and the Die-back of Mature Cacao Trees," showing that these trees, always liable to injuries from machetes, were subject to a canker disease, causing a sudden death of the tree when the canker had girdled it. The Xyleborus beetles breed in the dying wood, entering the tree through its wounds, and multiply rapidly within the tree. Though they are not the primary cause of the "Die-back," they do spread the spores of the canker which is the cause. The remedy is to burn the trees affected before they have become so dead as to allow the colony of beetles to leave them for other trees.